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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,437	03/08/2001	Joseph T. Dibene II	G&C 115.8-US-U1	7098

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EXAMINER

ALCALA, JOSE H

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 07/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,437

Applicant(s)

DIBENE ET AL.

Examiner

Jose H Alcala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 18-30 and 32-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17,31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species 5, claims 1-17 and 25-31 in Paper No. 11 is acknowledged. After further review of the elected claims, the examiner points out that claims 25-30 are not readable on the elected Species 5, but on the Species of figure 2, therefore these claims are treated as nonelected and no art rejection is provided for them.

2. Claims 18-30,32-34 are therefore withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 11.

Priority

2 Receipt of the certified copy of application 2000-318138, filed in Japan on 10/18/00 is acknowledged. However, the application seems to have been sent in error since the drawings does not correspond to the drawings of the US application, and in addition no mention is made in the Combined Declaration and Power of Attorney papers nor on the Bibliographical sheet of the case.

3. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Japan on 10/18/2000. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or

application data sheet is required in the body of which the present application should be identified by application number and filing date.

4. Receipt is acknowledged of a certified copy of the 2000-318138 application filed in Japan on 10/18/00. If this copy is being filed to obtain the benefits of the foreign filing date under 35 U.S.C. 119(a)-(d), applicant should also file a claim for such priority as required by 35 U.S.C. 119(b). If the application being examined is an original application filed under 35 U.S.C. 111(a) (other than a design application) on or after November 29, 2000, or an application in which applicant has requested voluntary publication, the claim for priority must be presented during the pendency of the application, and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior foreign application. See 37 CFR 1.55(a)(1)(i). If the application being examined has entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the claim for priority must be made during the pendency of the application and within the time limit set forth in the PCT and Regulations of the PCT. See 37 CFR 1.55(a)(1)(ii). Any claim for priority under 35 U.S.C. 119(a)-(d) or (f) or 365(a) or (b) not presented within the time period set forth in 37 CFR 1.55(a)(1) is considered to have been waived. If a claim for foreign priority is presented after the time period set forth in 37 CFR 1.55(a)(1), the claim may be accepted if the claim properly identifies the prior foreign application and is accompanied by a grantable petition to accept an unintentionally delayed claim for priority. See 37 CFR 1.55(c).

Drawings

5. Figures are improperly crosshatched. All of the parts shown in the section, and only those parts, must be crosshatched. The crosshatching patterns should be selected from those shown on page 600-81 of the MPEP based on the material of the part. See also 37 CFR 1.84(h)(3) and MPEP 608.02.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "301" has been used to designate both a first conductive member and a second conductive member. In addition, reference character "303" has been used to designate both a first conductive member and a second conductive member. Furthermore, reference character "302" has been used to designate both a dielectric and an outer conductive member. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 401. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 304. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the

Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ground return of the power signal, and the component of claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-17, 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 1, it is unclear if the invention is the apparatus that provides power from a first circuit board to a second circuit board, or if the invention includes the first and second circuit boards as part of the apparatus. In addition, the first circuit board and the second circuit board are not positively claimed which may create further confusion on the metes and bounds of the invention. Furthermore, the recitations: "first

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conductive surface" and "second conductive surface" is vague and makes the claim unclear, those layers should be labeled as "top surface" and "bottom surface".

Regarding Claim 4, it is unclear what is meant by a "linear" cross section.

Regarding Claim 9, in lines 2-3, the recitation: "power signal", is not clear if it is a power layer or a signal layer. In lines 4-5, the recitation: "ground return", is not clear if it is a ground layer. In addition it is not clear how the power signal is located with respect to the other elements of the device.

Regarding Claim 10, the exact location of the compressible conductive member is unclear, since the claim locates it between the second circuit board first surface and the second conductive member second surface, which would mean that the compressible conductive member is inside the second circuit board.

Regarding Claim 12, it is not clear what is meant by a "compressibly compliant portion urging contact", and how can it connect the following three elements: the second conductive member, the first circuit board second conductive surface and the second circuit board second conductive surface.

Regarding Claim 16, lines 1-2 are not clear on which of the conductive members, is the one that the apparatus is going to be disposed at the first end or the second end.

Regarding Claim 17, it is not clear what is meant by a "compressibly compliant member urging contact", and how can it connect the following three elements: the second conductive member, the first circuit board second conductive surface and the second circuit board second conductive surface.

Regarding Claim 31, it is not clear what is the structural limitation set forth in the claim, and how it is distinguished from the independent claim 1.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-5,7-8,10 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Harmon et al. (US Patent No. 4,502,193). As best understood by the examiner:

Regarding Claim 1, Harmon teaches an apparatus (See Figure 1) for providing power from a first circuit board (Reference Number 12) having a first circuit board first conductive surface and a first circuit board second conductive surface to a chassis which can be a second circuit board (Reference number 14) having a second circuit board first conductive surface and a second circuit board second conductive surface, comprising: a first conductive member (Reference number 10), including a first end having a first conductive member first surface electrically coupleable to the first circuit board first conductive surface and a second end distal from the first end having a first conductive member second surface electrically coupleable to the second circuit board first surface; and a second conductive member (Reference number 20), having a second conductive member first surface electrically coupleable to the first circuit board

second surface and a second conductive member second surface distal from the second conductive member first surface electrically coupleable to the second circuit board second conductive surface.

Regarding Claim 2, Harmon teaches that the first conductive member is a different length than the second conductive member (See figure 1).

Regarding Claim 3, Harmon teaches that the second conductive member (Reference number 20) is hollow and the first conductive member (Reference number 10) is disposed within the second conductive member (See figure 1).

Regarding Claim 4, Harmon teaches that the first conductive member and the second conductive member have matching cross sectional shapes selected from group comprising: **circular**; linear; ovoid; and rectangular. See figure 3.

Regarding Claim 5, Harmon teaches that the first conductive member and the second conductive member are coaxial. See Figures 1 and 3.

Regarding Claim 7, Harmon teaches that the first conductive member (Reference number 10) is a rigid mechanical standoff member mechanically coupling the first circuit board and the second circuit board, and is disposable between the first circuit board first conductive surface and the second circuit board first conductive surface such that the first circuit board and the second circuit board are separated by a standoff distance (Reference character A), as seen in figure 1.

Regarding Claim 8, Harmon teaches that the second conductive member is rigid and disposable between the first circuit board second conductive surface and the second circuit board second conductive surface, as seen in figure 1.

Regarding Claim 10, Harmon further teaches a compressible conductive member (Reference number 30), disposed between the second circuit board first surface and the second conductive member second surface.

Regarding Claim 31, Harmon teaches all the structural limitations therefore it is inherent that the first conductive member and the second conductive member are arranged to provide at least circuit characteristic selected from the group comprising inductance and capacitance so as to achieve a desired circuit characteristic in combination with circuit elements on the first circuit board or the second circuit board.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon et al. (US Patent No. 4,502,193) in view of Lehrfeld (US Patent No. 3,596,138). As best understood by the examiner:

Regarding Claim 6, Harmon teaches all the elements of the instant claimed invention as stated supra for claim 1, but fails to explicitly teach a dielectric disposed between the first conductive member and the second conductive member. Lehrfeld teaches a dielectric (Reference number 16) disposed between a first conductive member (Reference number 14) and the second conductive member (Reference

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number 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harmon and Lehrfeld, and in order to have a dielectric material between the first conductive member and the second conductive member, thus electrically insulating the first conductive member from the second conductive member, forming a coaxial type circuit.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon et al. (US Patent No. 4,502,193). As best understood by the examiner:

Regarding Claim 9, Harmon teaches all the limitations of the instant claimed invention as stated supra for claim 1, and in addition that the first circuit board first and second conductive surfaces are electrically coupled to leads and layers of conductive material (column 2, lines 63-65) of the first circuit board; the second circuit board first conductive surface is electrically coupled to a component (column 2, lines 58-62) of the second circuit board; and the second circuit board conductive surface is electrically coupled to leads and layers of conductive material (column 2, lines 63-65). Harmon fails to explicitly teach that the first circuit board first conductive surface is coupled to a power signal and that the first circuit board second conductive surface is coupled to a ground return of the power signal, and that the first circuit board second conductive surface is electrically coupled the ground return of the power signal. It is well known in the art to have power lines, signal lines and ground lines on circuit boards in order to enable the transmission of current. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Harmon to and in order to make the leads and layers of conductive material in the first circuit board first

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conductive surface be a power signal and in the first circuit board second conductive surface be a ground return of the power signal, and that the first circuit board second conductive surface be electrically coupled the ground return of the power signal, in order to enable the transmission of current from one circuit board to the other.

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon et al. (US Patent No. 4,502,193) in view of Cheng et al. (US Patent No. 5,345,366). As best understood by the examiner:

Regarding Claim 11, Harmon teaches all the limitations of the instant claimed invention as stated supra for claim 10, but fails to explicitly teach that the compressible conductive member is a crushable washer. Cheng teaches a crushable washer (Reference number 19), disposed between the second circuit board (Reference number 12) first surface and the second conductive member second surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harmon and Cheng in order to make the compressible conductive member as a crushable washer, thus including means to retain and reliably fasten the first and second conductive members to the second circuit board.

18. Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harmon et al. (US Patent No. 4,502,193) in view of Gonzales (US Patent No. 6,231,352). As best understood by the examiner:

Regarding Claim 12, Harmon teaches all the limitations of the instant claimed invention as stated supra for claim 1, but fails to explicitly teach that the second conductive member comprises a compressibly compliant portion urging contact

between the second conductive member and the first circuit board second conductive surface and the second circuit board second conductive surface. Gonzales teaches that the second conductive member (Reference number 2) comprises a compressibly compliant portion (Reference numbers 7 and 5) urging contact between the second conductive member and the first circuit board second conductive surface and the second circuit board second conductive surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harmon and Gonzales in order to have a compressibly compliant urging contact between the second conductive member and the first circuit board second conductive surface and the second circuit board second conductive surface, thus accommodating differences in positioning between the two printed circuit boards, particularly when both are interconnected via coaxial couplings.

Regarding Claim 13, Harmon as modified supra by Gonzales, teaches that the compressibly compliant portion is a spring portion.

Regarding Claim 14, Harmon as modified supra by Gonzales, teaches that the spring portion is disposed at the first end and compressibly contacts the second circuit board second conductive surface. See figure 2.

Regarding Claim 15, Harmon as modified supra by Gonzales, teaches that the spring portion is disposed at the second end and compressibly contacts the first circuit board second conductive surface.

Regarding Claim 16, Harmon as modified supra by Gonzales, teaches the spring portion is disposed at the first end or the second end.

Regarding Claim 17, Harmon as modified supra by Gonzales, teaches a compressibly compliant member electrically coupled to the second conductive member, the compressibly compliant member urging contact between the second conductive member and the first circuit board second conductive surface and the second circuit board conductive surface.

Regarding Claim 17, Harmon teaches all the limitations of the instant claimed limitation as stated supra for claim 1, but fails to explicitly teach teaches a compressibly compliant member electrically coupled to the second conductive member, the compressibly compliant member urging contact between the second conductive member and the first circuit board second conductive surface and the second circuit board conductive surface. Gonzales teaches a compressibly compliant member (Reference numbers 7 and 5) electrically coupled to the second conductive member (Reference number 2), the compressibly compliant member urging contact between the second conductive member and the first circuit board second conductive surface and the second circuit board conductive surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harmon and Gonzales in order to have a compressibly compliant member electrically coupled to the second conductive member, the compressibly compliant member urging contact between the second conductive member and the first circuit board second conductive surface and the second circuit board conductive surface, thus accommodating differences in positioning between the two printed circuit boards, particularly when both are interconnected via coaxial couplings.

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Conclusion

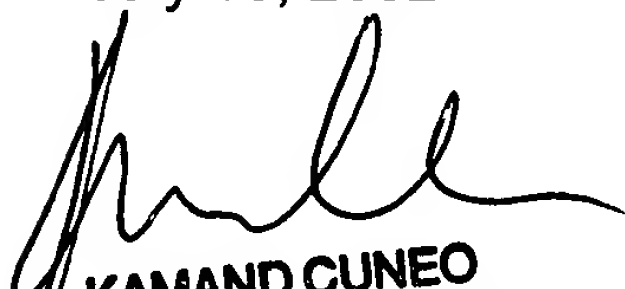
19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references teach some of the elements of the instant claimed invention: Boyle et al. (US Patent No. 3,854,374), Yu (US Patent No. 6,338,634), Kosmala (US Patent No. 5,460,543) and White (US Patent No. 6,347,042).

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jose H Alcala whose telephone number is (703) 305-9844. The examiner can normally be reached on Monday to Friday.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on (703) 305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

22. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JHA
July 16, 2002


KAMAND CUNEO
PRIMARY EXAMINER